

Appl. No. 10/517,402  
Amdt. Dated August 23, 2010  
Reply to Office Action Mailed May 21, 2010

**REMARKS**

The above-identified application has been reviewed in light of the Final Office Action mailed on March 2, 2010. Claims 21, 23-28, 32-36, 40-44, 48 and 49 are pending in the application. By this amendment, Claims 21, 35 and 40 have been amended. Applicants respectfully request consideration of the claims in view of the following remarks.

In the Office Action, Claims 21, 23, 24, 27, 32-36, 40-44, 48 and 49 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,536,127 to Pennig (hereinafter “Pennig”) in view of U.S. Patent No. 6,001,101 to Augagneur et al. (hereinafter “Augagneur”). According to the Examiner, Pennig discloses a surgical tack for attaching material to tissue comprising a head having a drive thread configured to prevent threaded engagement of the head into tissue, and a barrel portion having a tissue engaging thread, wherein a portion of the drive thread and a portion of the tissue engaging thread define a gap therebetween and the distal end of the drive thread and the proximal end of the tissue engaging thread are in the same plane that extends through a longitudinal axis of the barrel portion. The Examiner relies on Augagneur to disclose a throughbore extending through the head; a barrel portion for receipt of a drive tool; and, the drive thread and tissue engaging thread have substantially the same pitch.

Claims 21, 35 and 40, as currently amended, recite a surgical tack for attaching a material to tissue including, *inter alia*, a head having a drive thread formed on an outer surface thereof and a barrel portion having a tissue engaging thread formed on an outer surface thereof, “wherein the drive thread and the tissue engaging thread are formed in a same first direction.”

With reference now to Figs. 1-3 of Pennig, reproduced herebelow, Pennig discloses a screw 1 having a head 2 and a shank 3. The outside of the screw head 2 is provided with a screw-head thread 5, the thread-advance of which is directed opposite the direction of the thread-

advance the screw-shank thread 4. This being the case, an internally threaded tool such as a nut may be threaded onto the head thread 5, to the point of engagement with a stop. Once the stop is engaged, continued nut rotation in the same direction is operative to retract screw 1 from the patient's bone. Thus, the screw of the Pennig can be removed from pinned locating engagement with an intermedullary nail and from threaded engagement to a bone, merely by driving the nut in the direction opposite the direction of initial shank-screw engagement to the bone.

FIG.1

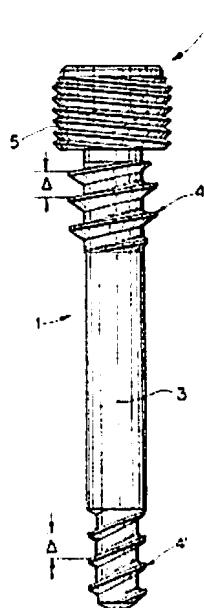


FIG.2

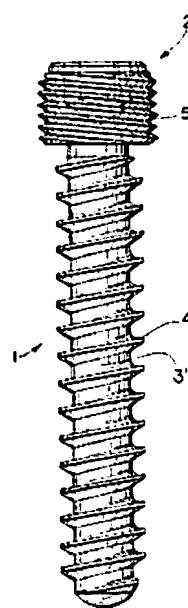
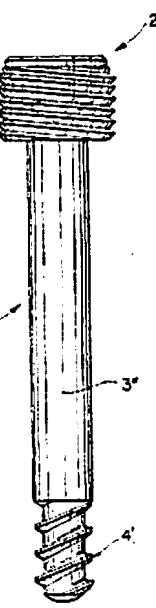
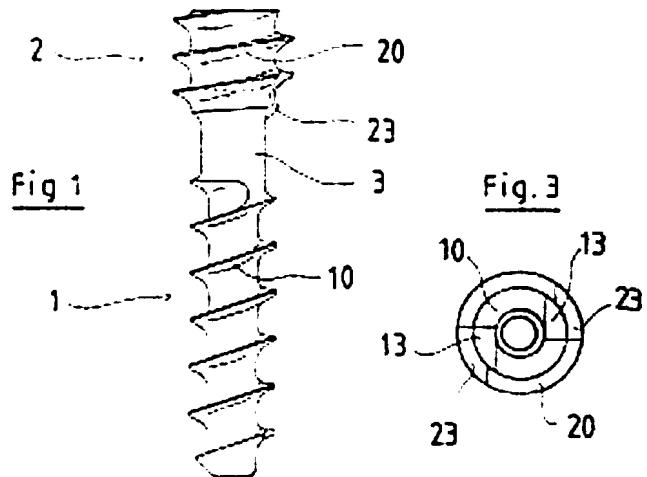


FIG.3

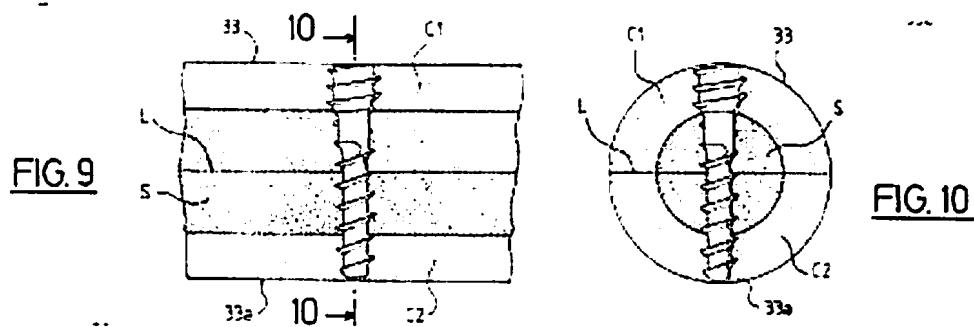


As shown in Figs. 1 and 3 of Augagneur, reproduced hereinbelow, Augagneur discloses a screw device for the coaptation of two small bone fragments having a long threaded distal part 1 and a short threaded proximal head part 2. Long threaded distal part 1 includes a first thread 10 and short threaded proximal head part 2 includes a second thread 20. Between distal part 1 and proximal part 2, the bone screw is provided with a smooth section 3. The screw operates to compress two bone fragments through the action of the differing pitches of thread portions 1 and 2. During a complete revolution of the screw about its longitudinal axis, the travel of distal part

1 is higher than the travel of proximal part 2. Each lower end of distal part 1 and proximal part 2 include a lateral notch 13, 23, respectively. Notches 13, 23 are diametrically opposite each other and are intended to permit self-tapping into bone.



With reference to FIGS. 9 and 10 of Augagneur, because head 2 of the bone screw is entirely threaded, the bone screw is completely embedded within the bone, thereby preventing trauma to surrounding tissue.



Contrary to the Examiner's assertion, Pennig does not disclose a surgical tack for attaching a material to tissue. Instead, as discussed in detail above, Pennig discloses a screw having a threaded head, the thread-advance of which is directed opposite the direction of the thread-advance of a screw-shank thread, configured to receive a nut to assist in the removal of the screw. Thus, Pennig fails to disclose a drive thread and a tissue engaging thread that are

Appl. No. 10/517,402  
Amdt. Dated August 23, 2010  
Reply to Office Action Mailed May 21, 2010

formed in a same first direction.

Although Augagneur discloses a screw device for coaptation of two small bone fragments having first and second threads formed in a same direction, combining this feature of Augagneur with the screw of Pennig renders the screw of Pennig inoperable for its intended purpose. MPEP § 2143(V) states that “[i]f proposed modification would render the prior art being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.” The thread-advance of the threaded head of the screw of Pennig is opposite that of the thread-advance of the screw-shank thread such that continued rotation of a nut received on the threaded head causes the retraction of the screw-shank thread from within bone. Modifying the threaded head to include a thread-advance in the same direction of the screw-shank thread would operate only to further advance the screw-shank thread into bone.

Therefore, Augagneur does not provide any disclosure, that when taken in proper combination with Pennig, discloses a surgical tack for attaching a material to tissue including, a head having a drive thread formed on an outer surface thereof and a barrel portion having a tissue engaging thread formed on an outer surface thereof, “wherein the drive thread and the tissue engaging thread are formed in a same first direction”, as recited in amended Claims 21, 35 and 40.

Since Claims 23, 24, 27, 32-34, 48 and 49 depend from amended Claim 21, Claim 36 depends from Claim 35, and 41- 44 depend from amended Claim 40, it is respectfully submitted that these claims are also in condition for allowance.

In the Office Action, Claims 34, 36 and 42 were rejected under 35 U.S.C. § 103 (a) as being unpatentable over Pennig in view of Augagneur and further in view of U.S. Patent No. 4,456,005 to Lichtry (hereinafter “Lichtry”). The Examiner relies on Lichtry to disclose a screw

having a drive thread and a tissue engaging thread having substantially the same pitch. As discussed above with respect to Pennig in view of Augagneur, and proper combination of Lichty with Pennig, fails to disclose a surgical tack for attaching a material to tissue including, a head having a drive thread formed on an outer surface thereof and a barrel portion having a tissue engaging thread formed on an outer surface thereof, "wherein the drive thread and the tissue engaging thread are formed in a same first direction", as recited in amended Claims 21, 35 and 40. Since Claim 34 depends from amended Claim 21, Claim 36 depends from Claim 35, and Claim 42 depends from Claim 40, it is respectfully submitted that these claims are also in condition for allowance.

In the Office Action, claims 25 and 28 were rejected under 35 U.S.C. § 103 (a) as being unpatentable over Augagneur in view of Pennig and further in view of U.S. Patent No. 5,169,400 to Mühling et al. (hereinafter "Mühling"). The Office Action stated that Augagneur discloses a throughbore, but fails to disclose that the throughbore has a D-shaped cross-section. According to the Office Action, it would have been obvious to modify the throughbore of Augagneur to include a shape that better applies the torque of an insertion tool as disclosed in Mühling.

As discussed hereinabove, Pennig in view of Augagneur fail to disclose or suggest the surgical tack recited in amended Claim 21. Adding the non-circular throughbore of Mühling fails to cure the deficiencies of Augagneur and Pennig. Mühling fails to disclose or suggest any features that, in combination with Augagneur and Pennig, would suggest the surgical tack recited in amended Claim 21. Since Claims 25 and 28 depend from independent Claim 21, it is respectfully submitted that these claims are in condition for allowance.

Please charge any deficiency as well as any other fee(s) which may become due under 37 C.F.R. § 1.16 and/or 1.17 at any time during the pendency of this application, or credit any

Appl. No. 10/517,402

Amtd. Dated August 23, 2010

Reply to Office Action Mailed May 21, 2010

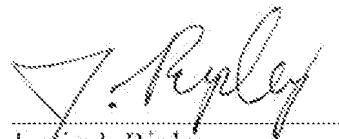
overpayment of such fee(s) to Deposit Account No. 21-0550. Also, in the event any extensions of time for responding are required for the pending application(s), please treat this paper as a petition to extend the time as required and charge Deposit Account No. 21-0550 therefor.

Prompt and favorable action on these claims, namely claims 21, 23-28, 32-36, 40-44, 48 and 49 is earnestly requested. Should the Examiner desire a further telephonic interview to resolve any outstanding matters, the Examiner is sincerely invited to contact the undersigned at (631) 501-5718.

**Carter, DeLuca, Farrell & Schmidt, LLP**  
445 Broad Hollow Road - Suite 420  
Melville, New York 11747  
Tel.: (631) 501-5718  
Fax: (631) 501-3526

**Send correspondence to:**  
Chief Patent Counsel  
COVIDIEN - Surgical Devices  
Suite 8 N-1  
Legal Department  
555 Long Wharf Drive  
New Haven CT 06511

Respectfully submitted,



Justin J. Ripley  
Reg. No. 59,187  
Attorney for Applicants